

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claims 1-24 (Canceled)

Claims 25-32 (Canceled)

Claim 33 (Previously Presented): A system comprising:

- a source device profile interpreter that interprets a source device profile to convert coordinates in a source device color space to a device-independent color space;

- a destination device profile interpreter that interprets a destination device profile to convert coordinates in a destination device color space to the device-independent color space;

and

- a color transformer that generates a color map defining a relationship between the source and destination device color spaces based on the converted coordinates and user preferences specified by a user independently of the source and destination device profiles, wherein the user preferences include color conversion preferences,

- wherein the color transformer generates the color map in part by reducing color error between the converted coordinates from the source and destination device profile interpreters, and

- wherein the source and destination device profile interpreters use forward transformation profiles to produce the converted coordinates, and the color transformer adjusts coordinates in the destination device color space to reduce the color error, the color map being based in part on the adjusted coordinates in the destination device color space.

Claim 34 (Previously Presented): The system of claim 25, wherein the source device profile contains raw spectral data that characterizes a source device, and the destination device profile contains raw spectral data that characterizes a destination device.

Claim 35 (Previously Presented): The system of claim 25, wherein each of the source and destination device profiles defines a forward transformation from one of the source and destination color spaces to the device-independent color space.

Claim 36 (Previously Presented): The system of claim 25, wherein the color map includes a look-up table.

Claim 37 (Previously Presented): The system of claim 25, wherein the color map includes a mathematical expression.

Claims 38-46 (Canceled)

Claim 47 (Previously Presented): A system comprising:

means for interpreting a source device profile to convert coordinates in a source device color space to a device-independent color space;

means for interpreting a destination device profile to convert coordinates in a destination device color space to the device-independent color space; and

means for generating a color map defining a relationship between the source and destination device color spaces based on the converted coordinates and user preferences specified by a user independently of the source and destination device profiles, wherein the user preferences include color conversion preferences,

wherein the means for generating a color map generates the color map in part by reducing color error between the converted coordinates from the source and destination device profile interpreters, the means for interpreting the source and destination device profiles use forward transformation profiles to produce the converted coordinates, and the means for generating a color map adjusts coordinates in the destination device color space to reduce the color error, the

color map being based in part on the adjusted coordinates in the destination device color space.

Claim 48 (Previously Presented): The system of claim 47, wherein the user preferences include illuminant functions.

Claim 49 (Previously Presented): The system of claim 47, wherein the user preferences include observer functions.

Claim 50 (Previously Presented): The system of claim 47, wherein the means for generating a color map adjusts the means for interpreting the source and destination device profiles based on the user preferences.

Claim 51 (Previously Presented): A method comprising:
interpreting a source device profile to convert coordinates in a source device color space to a device-independent color space;
interpreting a destination device profile to convert coordinates in a destination device color space to the device-independent color space; and
generating a color map defining a relationship between the source and destination device color spaces based on the converted coordinates and user preferences specified by a user independently of the source and destination device profiles, wherein the user preferences include color conversion preferences,
wherein generating a color map includes generating the color map in part by reducing color error between the converted coordinates from the source and destination device profile interpreters, interpreting the source and destination device profiles includes using forward transformation profiles to produce the converted coordinates, and generating a color map includes adjusting coordinates in the destination device color space to reduce the color error, the color map being based in part on the adjusted coordinates in the destination device color space.

Claim 52 (Previously Presented): The method of claim 51, wherein the user preferences include illuminant functions.

Claim 53 (Previously Presented): The method of claim 51, wherein the user preferences include observer functions.

Claims 54-59 (Canceled)

Claim 60 (New): The system of claim 33, wherein the user preferences include illuminant functions.

Claim 61 (New): The system of claim 33 wherein the user preferences include observer functions.

Claim 62 (New): The system of claim 33, wherein the color transformer adjusts the source and destination device profile interpreters based on the user preferences.

Claim 63 (New): The system of claim 33, wherein the source and destination profile interpreters are configured as removable plug-in modules for use by the color transformer.

Claim 64 (New): The system of claim 33, wherein the source and destination device profile interpreters are configured based on white- and black-point parameters to account for color variations between media and colorants used by different color display devices.